DISA
DEFENSE INFORMATION SYSTEMS AGENCY
The IT Combat Support Agency

JITC Unified Capabilities Team

Reduces Testing Time , Cost; Increases Testing Capacity

Mr. Gerry Lopez
Technical Director, Networks, Communications, & UC
Division

24 October 2016

Disclaimer

The information provided in this briefing is for general information purposes only. It does not constitute a commitment on behalf of the United States Government to provide any of the capabilities, systems or equipment presented and in no way obligates the United States Government to enter into any future agreements with regard to the same. The information presented may not be disseminated without the express consent of the United States Government. This brief may also contain references to United States Government future plans and projected system capabilities. Mention of these plans or capabilities in no way guarantees that the U.S. Government will follow these plans or that any of the associated system capabilities will be available or releasable to foreign governments.

BLUF

- **DoD CIO process; centralized management, decentralized execution**
  - **Stakeholders set requirements via Unified Capabilities Requirements (UCR) document**
  - **Commercially based requirements; DoD selects for UCR inclusion**
  - **Same test plans used across MILDEP UC test labs**

- **Reduced time and cost to field Unified Capabilities by *69%***
  - **$9M cost avoidance & 4,000 test days avoided**
  - **Vendor builds to UCR before bringing to DoD sponsor**
  - **Utilizing vendor-provided data**

- **Increased DoD's capacity to field Unified Capabilities by *33%***
  - **Standardized test plans/procedures**
  - **Data reciprocity with MILDEP UC test labs; distributed testing**
  - **Army, Navy, Air Force labs**

Vendor-Provided Documents

- **Vendor submitted Self-Acceptance Report (SAR) helps vendor reduce minor Information Assurance (IA) findings during test reducing overall IA test window**

- **Vendor submitted Letters of Compliance (LoCs) are used to address Unified Capabilities (UC) requirements prior to start of testing (sometimes leading to "non-testing") reducing the overall interoperability (IO) test window**

- **Desk Top Reviews (DTRs) are submitted by vendors for minor changes (HW/SW) for products that are already on the APL. DTRs increase efficiencies by focusing testing, if required, only on the areas changed. Risk analysis by test facility determines if testing is required for submitted DTR changes. Analysis outcomes include, no testing required, verification & validation (V&V) testing for IA or IO only, or V&V for both IA/IO.**

Original vs. DTR Submissions

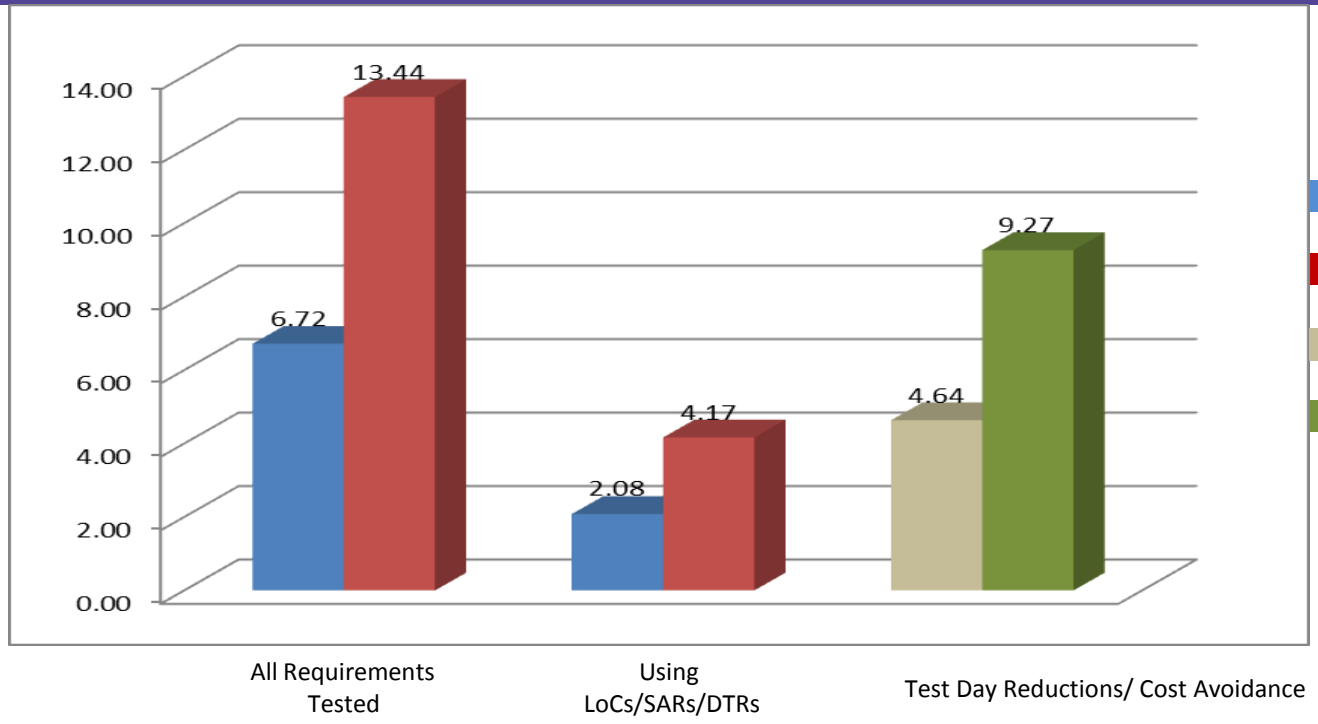
Stakeholder	Process
Vendor	Sponsorship
	APLITS Submission
	SAR Submission
	IA Test
	IO Test
	POA&Ms
	IA Outbrief
	POAM Finalization
	IO POA&Ms
	IO Outbrief
	Deployment Guide
UCCO	Verification
	TN/ICM
	SAR Review
	IAAR Review
	IA CA Request
	IA POA&M/Removal
	APL Memo
	APL Notification/Posting
	IAAP Completion
Sponsor	Approval
	ICM
	IA Outbrief
	IO Outbrief
	TDR Adjudication
Test Facility	ICM Minutes
	Business Model/Scheduling
	IA Test
	IO Test
	IA Findings Report
	IA Outbrief
	IA Outbrief Minutes
	IAAR
	TDRs
	IO Outbrief
	TDR Adjudication
	Certification Summary
JITC	ICM Minutes
	Business Model/Scheduling
	IA Test
	IO Test
	IA Findings Report
	IA Outbrief
	IA Outbrief Minutes
	IAAR
	TDRs
	IO Outbrief
	TDR Adjudication
	Certification Summary
	Certification Memo
FSO (IA CA)	ICM
	IA Findings Report
	IA Outbrief
	IAAR
	CA Letter

Originally Submitted TNs Process

Stakeholder	Process
Vendor	APLITS Submission
	DTR Test
	Deployment Guide
UCCO	Validate submission
	Distribute to Lab/JITC
	GOVT Approval
	Post memo
Sponsor	Validate Submission
Test Facility	DTR Review
	DTR Scheduling
	DTR Test
	IAAR Update
	DTR Memo
JITC	DTR Review
	DTR Scheduling
	DTR Test
	IAAR Update
	DTR Memo
FSO (IA CA)	Coordination
	IAAR Update

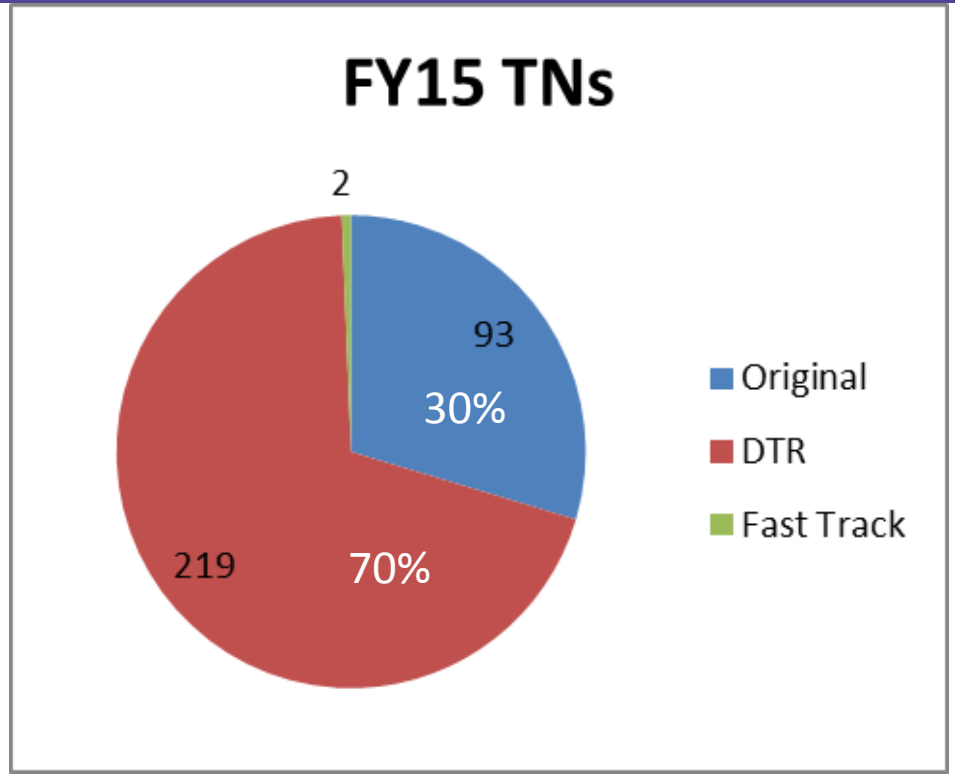
DTR TNs Process

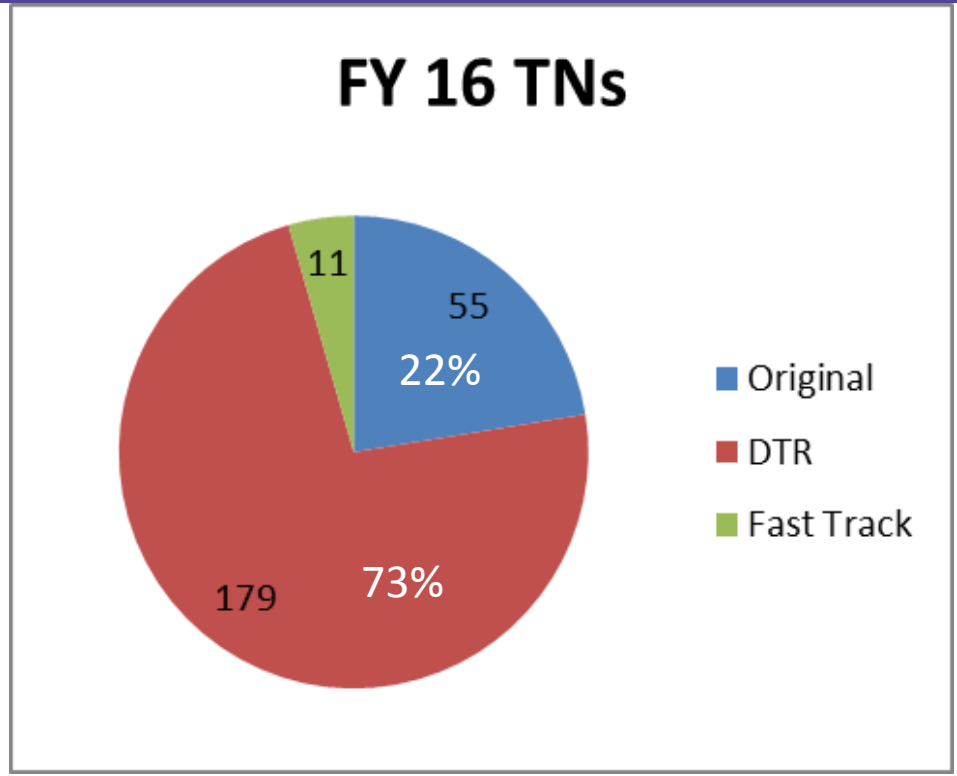
Total Testing Reductions FY15



Reduced total test days & realized cost avoidance of 69%

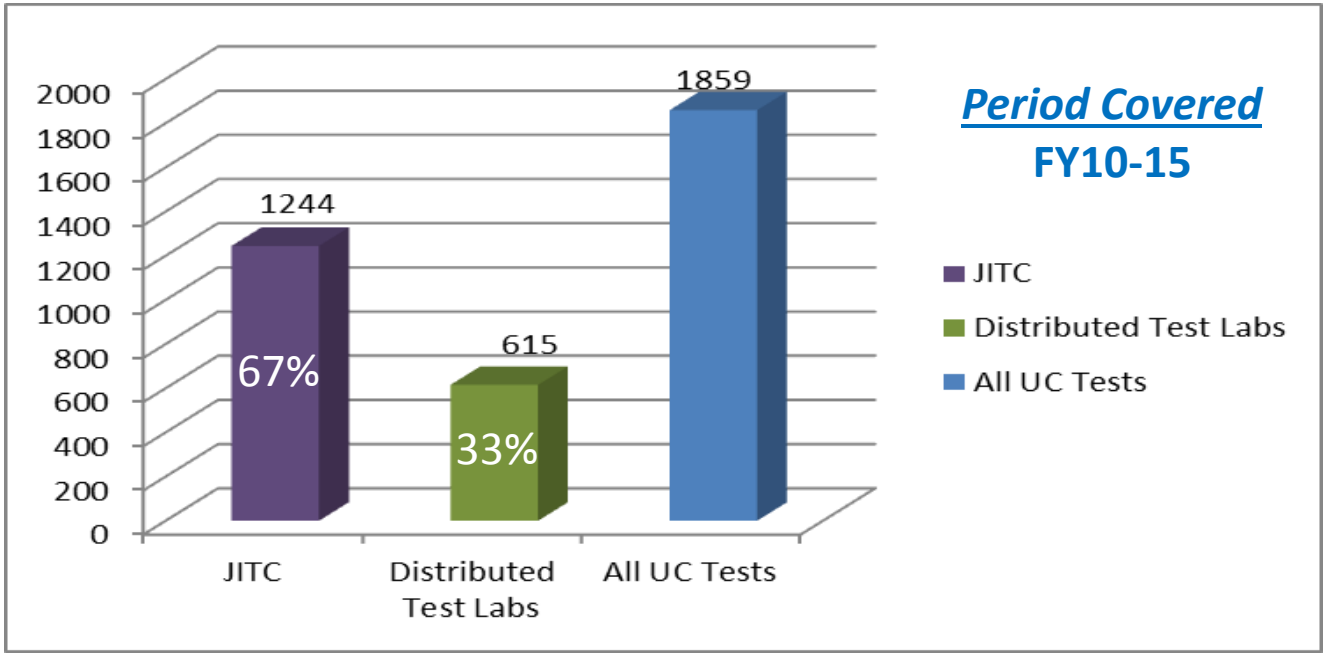
Majority of Submissions are DTRs





Each chart shows all the tracking numbers whose submit date is from the displayed fiscal year, separated based on test type.

Distributed Testing FY10-15



Service labs

USA= Technology Integration Center, US Army Information Systems Engineering Command (ISEC), AZ

USAF= Telecommunications System Security Assessment Program (TSSAP), TX

USN= SPAWAR, St Julien's Creek, VA

Target State - Achieving the JIE Vision

JIE is a comprehensive Department-Wide "continual IT modernization effort" designed to advance DoD's Information Superiority in a common, coordinated way. It refreshes old technology, optimizes networking capability for the fixed and mobile user, improves access to data, and implements a new regional security defense mechanism for the DODIN.

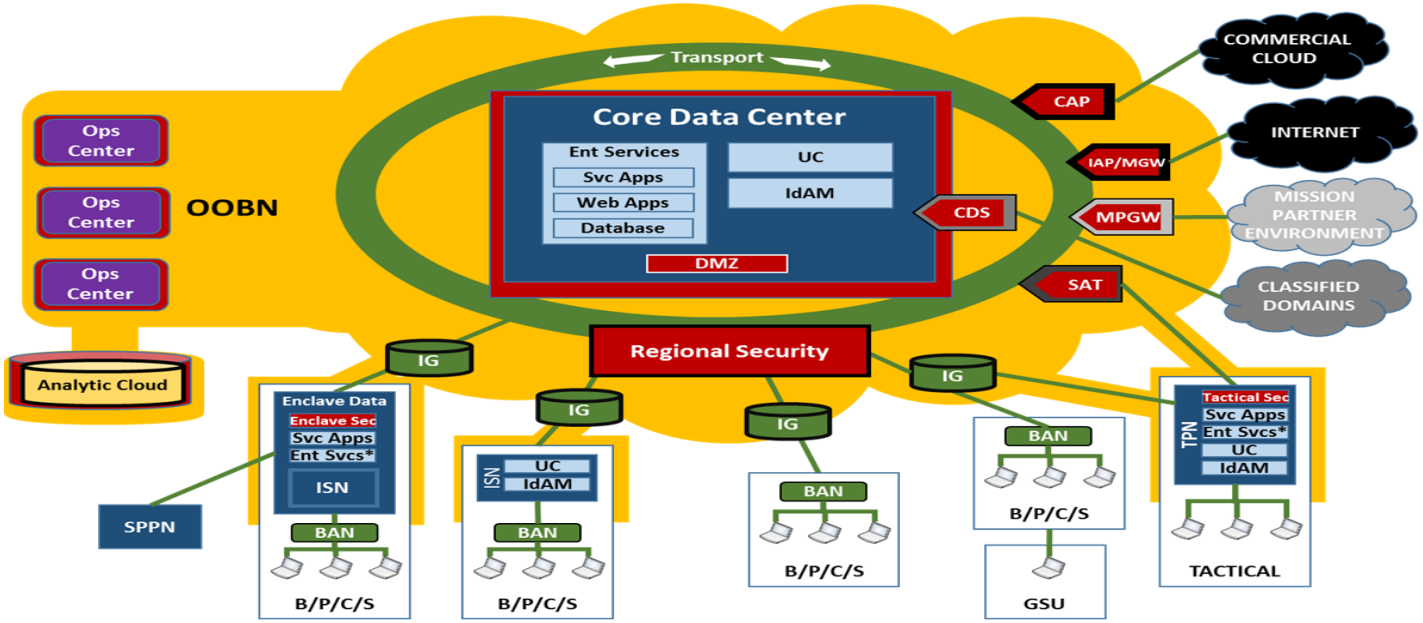
The JIE effort has 10 capability objectives: *(modernize network infrastructure, implement new cyber security protections, converge enterprise network operations, establish commercial cloud environments, optimize data center infrastructure, provide MPE-Information System, improve identity and access management, enhance enterprise mobility, accelerate IT commodity procurements, and establish tailorable enterprise services).*

The intended outcome of the IT modernization effort is a Joint Information Environment that is efficient, effective, and more secure.

The concept of JIE refers to a comprehensive, continual IT modernization effort for the Department's IT and Cyber infrastructure. The vision behind JIE is a more secure, coordinated, seamless, transparent, and cost effective IT architecture that transforms data into actionable information and ensures dependable mission execution in the face of a persistent cyber threat.

- Terry Halverson, DoD CIO 29 July 2016

JIE Framework



JIE CYBERSECURITY	
JIE CAPABILITIES	
JRSS	Joint Regional Security Stack
UC	Unified Capabilities
Ent Svcs	DoD Enterprise Services (*Extended)
IdAM	Identity and Access Management
Svc Apps	DoD Component Applications
DMZ	Demilitarized Zone

JIE GATEWAYS	
IAP	Internet Access Point
MGW	Mobility Gateway
MPGW	Mission Partner Gateway
CDS	Cross Domain Solution
SAT	Satellite Communications Gateway
CAP	Cloud Access Point

JIE ORGANIZATIONS
Operations Centers (Ops Centers)

JIE TRANSPORT INFRASTRUCTURE	
IG	Installation Gateway
BAN	Base Area Network

JIE DATA CENTER & NODES	
CDC	Core Data Center
IPN	Installation Processing Node
ISN	Installation Service Node
TPN	Tactical Processing Node
SPPN	Special Purpose Processing Node
GSU	Geographic Separated Unit

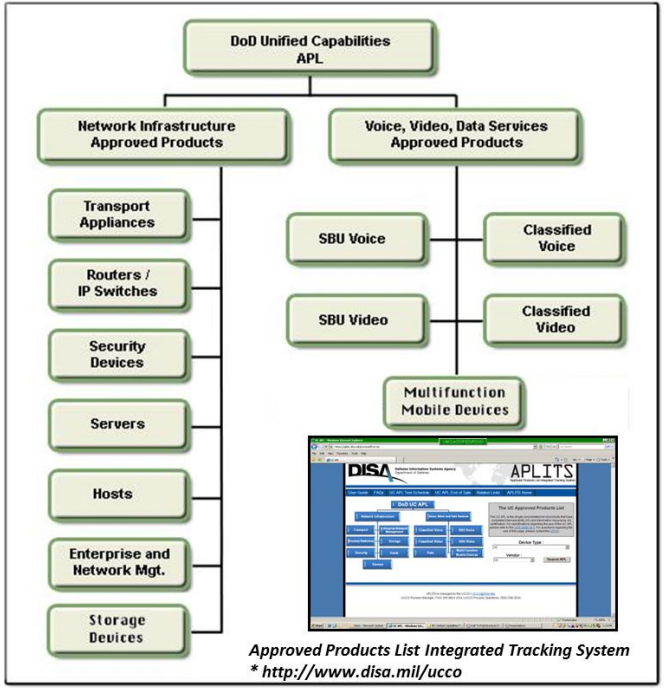
DoD UC Test and Certification Program

DoD UC Requirements (UCR) - Specifies the functional requirements, performance objectives, and technical specifications for DoD networks:

- **Establishes the minimum technical standards and specifications needed by industry to develop requirements-compliant UC solutions**
- **Provides the foundation for the development of UC Test Plans for interoperability and IA testing**
- **Provides basis for test, certification, acquisition, connection, and operation of UC products**

DoD UC Approved Products List (APL)

- **APL is the single authoritative source for certified UC products on DoD networks**
- **Contains UC products certified for both interoperability and IA**
- **DoD Components are required to acquire and/or operate only UC products listed on the UC APL**

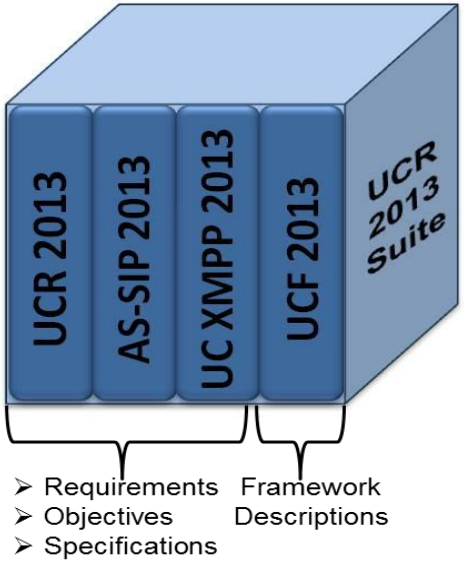


Common User Requirements – " Test Once for many"

UCR 2013 Document Suite

DoD UCR is mandated by DoD Instruction 8100.04, "*DoD Unified Capabilities,*" December 9, 2010

- *DoD CIO shall "Provide overall policy and direction for the development of UC requirements and approve the UCR for use in test and certification of UC products."*
- *"The UCR shall specify the functional requirements, performance objectives, and technical specifications for DoD networks that support UC, and shall be used to support test, certification, acquisition, connection, and operation of these devices."*



Suite of Documents Comprising the UCR

- UCR 2013: contains the functional requirements, performance objectives and technical specifications for 14 product functional categories.
- Assured Services – Session Initiation Protocol (AS-SIP) 2013: contains the requirements for the IP-based UC Signaling system.
- UC XMPP 2013: contains the requirements for multivendor interoperability required to exploit the full potential of Instant Messaging (IM), Chat, and Presence across DoD.
- UC Framework 2013: specifies the descriptive text and design associated with each section of the UCR.

16 Functional Categories in UCR 2013

- Session Control Products
- Auxiliary Services
- Cybersecurity
- IPv6 implementation
- Network Infrastructure End-to-End Performance
- Network Edge Infrastructure,
- Multi-function Mobile Devices
- Video Distribution System
- Network Infrastructure Products
- Network Elements
- Generic Security Devices
- Security Devices
- Online Storage Controller
- Enterprise and Network Management Systems
- XMPP
- Assured Services – Session Initiation Protocol (AS-SIP)

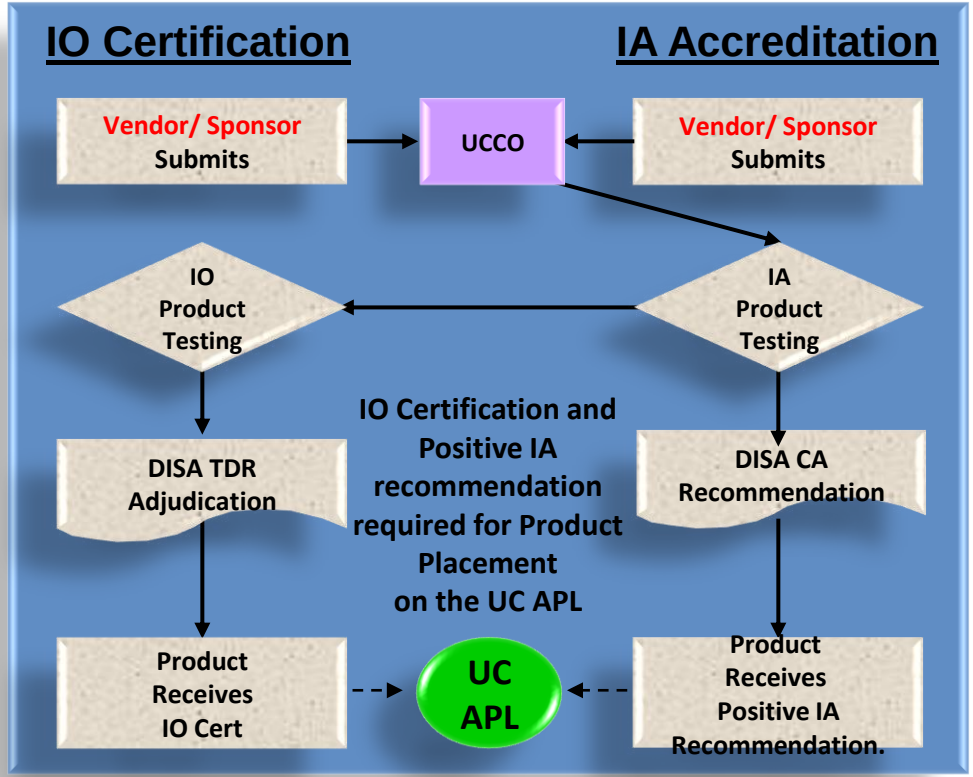
UC APL Testing and Certification Approach /Methodology

UC Test Policy

- DoDI 8100.04, "DOD Unified Capabilities
- Unified Capabilities Requirements 2013, Change 1, June 2015

General Testing Methodology

- Standardized Test Requirements
- Standardized Test Procedures
- Standardized Test Process
- Emulated IP and TDM networks
- Emulated IA Infrastructure
- Facilitate Research and Development Testing
- Standard Business Process w/ CRADA
- Standard Test Scheduling Process
- Mature Process Documentation
  - UC APL Process Guide



Continue Achieving Efficiencies

- **Reducing testing**
  - **In lieu of requiring a full test of all certification requirements, continue to leverage vendor-submitted documents to buy down or eliminate need for testing.**
  - **Leverage improved test infrastructure to expedite testing**
- **Increasing DoD's UC testing capacity**
  - **Certified MILDEP labs use JITC-approved UC certification test plans & procedures**
  - **Enables DoD to more rapidly field critical warfighting capabilities**
  - **Three other service labs partner with the JITC test team:**
    - **Army: Technology Integration Center, US Army Information Systems Engineering Command, AZ**
    - **Navy: Space and Naval Warfare Systems Command, VA**
    - **Air Force: Telecommunications System Security Assessment Program, TX**
  - **Continued evaluation and expansion of UC test capabilities across distributed labs**
- **Evaluating and modifying the UC APL process**

UC APL Testing and Certification Supporting Web Sites /Tools

- **Approved Products List Integrated Tracking System (APLITS) (URL: https://aplits.disa.mil/)**
  - **Gateway to APL and Process**

- **UC Doc Depot (URL: http://jitc.fhu.disa.mil/projects/ucdepot/index.aspx)**
  - **Repository for latest test artifacts**
    - **Letter of Compliance Product Templates**
    - **Test Procedures**
    - **IO Certification Letter Templates**

- **UC Test Deficiency Reports (TDR) Database (URL (https://jitcweb4.fhu.disa.mil/JDMT/login.asp)**

- **Telecom Switched Services Interoperability (TSSI) IO Certifications Manager URL: (http://jitc.fhu.disa.mil/projects/tssi/cert.aspx)**
  - **UC Products IO Certification Letters Repository**

For additional information please contact us at disa.huachuca.jt.mesg.jitc-uc-eng-support-team@mail.mil

DEFENSE INFORMATION SYSTEMS AGENCY
The IT Combat Support Agency

UNITED IN SERVICE TO OUR NATION